of the posterior canal wall and the extension of the cholestatoma between the bone and periosteum, an exaggeration of the minor cases of cholesteatomatous destruction above mentioned. At the time of the report the patient was well, the perforation in the drum-head had closed, there was neither tinnitus, dizziness, nor facial paralysis, and the hearing was one-half of normal.

**Disturbance of Equilibrium Resulting from Disease of the Semicircular Canals.**—J. Borowikov (*Wojenno Medizinski Schurnal*, St. Petersburg, May, 1907). The patient, a man aged twenty-four years, was admitted to the clinic for nervous diseases of the Petersburger Military Medical Academy after exposure to severe cold. The hearing in both ears was much impaired, his sight was dim, and he balanced himself with difficulty; a thorough examination gave no evidence of other disease than that within the cranium, and the hearing was reported to have decreased so much within the preceding year as to make the use of a conversation tube necessary. Both drum-heads were opaque, thick, and wanting in light reflex, but movable under the Siegle speculum. The particular interest in the case centred itself about the peculiarity of the disturbance of equilibration, which was equally in evidence whether the patient walked or stood still, and he could neither run nor walk backward, and could turn to one side or the other only with the greatest difficulty. (1) Examination by means of the centrifuge determined that the direction of movement was determined more easily when the movement was rapid than when it was slow. (2) The sensation of movement in the opposite direction occurred occasionally only when the movement was rapid and suddenly stopped. (3) There was no sensation of dizziness either in the centrifuge or without it. (4) Nystagmus was wanting. From all of which it was evident that the function of the labyrinth, and especially as concerned the semicircular canals, was very much decreased. Furthermore, no dizziness was excited by closing or opening an induction current of from five to six milliamperes.

## PATHOLOGY AND BACTERIOLOGY.

UNDER THE CHARGE OF
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**The Pathological Anatomy, Etiology, and Epidemiology of Miliary Fever.**—Epidemics of miliary fever have been reported by several observers, and A. Weichselbaum (*Zeit. f. klin. Med.*, 1907, lxii, 21) has had an opportunity of investigating three epidemics. In one epidemic, which lasted from February until May, 57 persons were attacked, 24.5 per cent. of whom died; in the second epidemic 34 persons were attacked, with a mortality of 32.3 per cent.; and in the third epidemic, lasting from March until July, 1905, 126 persons were affected, the mortality being 16 per cent. These epidemics showed that the locality and the season of the year were of little importance. The peculiarity of the epidemics, the characteristic clinical course of the disease, and the pathological anatomical findings all stamp the condition as a disease "sui generis." So long as there is no epidemic the disease may be mistaken for other conditions, and at times epidemics may be confounded with scarlet fever, measles, and rötheln. The sudaminæ, whether they occur as nodules or vesicles containing clear or milky fluid, are never caused by a retention of fluid in the sweat glands, but are always of an inflammatory nature. This could be shown by serial sections through sudaminæ. The lesions are found in the epidermis principally, though changes are also present in the corium. The disease does not seem to be contagious. Although many methods of investigation were resorted to, the cause of the disease could not be discovered.

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**The Effects of Resection of the Hypophysis.**—PAULESCO (*Jour. de physiol. et de path. gén.*, 1907, ix, 441) has been able to devise a method by which he could remove portions of the hypophysis or the entire hypophysis in dogs and cats without serious injury to the surrounding structures. Complete removal of the hypophysis of dogs is followed very rapidly by death. The animals never survive the operation more than twenty-four hours. If the animal lives longer than twenty-four hours after the operation for complete removal, one may always find a small bit of the hypophysis which has been left behind. There are no special symptoms which are characteristic either after complete or incomplete removal. Excision of a portion of the cortical substance of the epithelial lobe does not give rise to any particular symptoms, and the dogs which have undergone this operation may live indefinitely. If, however, the entire cortical substance of the epithelial lobe is removed, the effect is the same as if the entire gland had been excised. On the other hand, ablation of the entire lobe which is composed of nerve elements, is not followed by symptoms and is compatible with life. During the experiments it was found that the third ventricle could be opened without fatal results. Death following excision of the hypophysis was not caused by injuries to the base of the brain, for such injuries were always followed by convulsions, hemispasms, and similar severe nervous disturbances. Paulesco concludes that the hypophysis is an organ which is indispensable to life. Its absence causes rapid death. Of the various parts of the gland the most important is the cortical portion of the epithelial lobe.

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**Trypanosome Infection through the Mucous Membrane of the Gastro-intestinal Tract.**—Although it has been demonstrated, almost without a doubt, that tryponosomes are conveyed from infected animals to their new host by the means of insects, still a number of observations which have been published suggest that there may be still other methods of transmission. YAKIMOFF and SCHILLER noticed, two years ago, that a gray rat which had fed upon the body of a white rate infected with trypanosome developed trypanosomiasis. They therefore studied this method for the transmission of the disease (*Cent. f. Bact. und Parasit.*, 1907, xliii, 694) and have found that it is possible, in a certain number of instances, to produce the disease by feeding rabbits, dogs, guinea-pigs, and rats with meat infected with trypanosomes. Mice could not be infected by this means. The possibility of infection through mechanical abrasion of the mucous membrane was excluded. With the first experiments artificial means were resorted to for the purpose of furthering the infection. The animals were starved, opium was given, and an attempt was made to neutralize the gastric juice with sodium bicarbonate. With the exception of opium, which slowed the peristalsis, these measures were not found to increase perceptibly the tendency to infection through the gastro-intestinal tract. This path of infection does not, of course, have much importance in the transmission of the disease to herbivorous animals or to man, but it may play a certain role in the transmission of the disease to the carnivora.

**The Action of Tobacco Smoke upon the Bloodvessels of Rabbits.**—It has long been suspected by clinicians that tobacco had some effect upon the heart's action, while certain observers have even attributed some importance to tobacco in the etiology of arteriosclerosis. To throw some light upon this question from the experimental side ZEBROWSKI (*Cent. f. Allg. Path. und Path. Anat.*, 1907, xviii, 337) has inoculated rabbits with nicotine and the soluble products of tobacco smoke. Rabbits were inoculated intravenously repeatedly and at short intervals with an extract of "Machorka" smoke (Machorka is a low grade of tobacco which is smoked generally by the peasants in Russia)—an extract of a better grade of tobacco, a 0.5 per cent. solution of nicotine, and for control purposes adrenalin solution. At the time that the author wrote his paper 11 of the 40 inoculated rabbits had died; 4 rabbits which had received the "Machorka" smoke extract all showed more or less marked changes in the aorta. The changes consisted in dilatation of the vessel with irregular nodular thickening of the intima. 3 of the 5 rabbits which had received nicotine showed the same type of lesions in the aorta, while 1 of 2 adrenalin rabbits showed changes in the aorta. The aortas of 6 control rabbits kept under the same conditions were, of course, normal. Though this is but a preliminary report Zebrowski considers that he has sufficient proof to show that the soluble substances of tobacco smoke are capable, when injected into rabbits, of giving rise to definite changes in the walls of the bloodvessels.

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